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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/967,265 | 08/28/2001 | Noyes L. Avery | JJA-0008 | 5218 |

7590 12/19/2002
ExxonMobil Research and Engineering Company
P.O. Box 900
Annandale, NJ 08801-0900

EXAMINER

MEDLEY, MARGARET B

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1714

DATE MAILED: 12/19/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

72-6

| | | | |
|------------------------------|--------------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/967,265 | AVERY ET AL. | |
| | Examiner | Art Unit | |
| | Margaret B. Medley | 1714 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim 7 is objected to because of the following informalities: The spelling of the term “fuel” in line 2 should be corrected. Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-9 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Tsuboi 6,187,171 B1.

Tsuboi teaches a method for using reformat aromatics in contents having 30% volume in leaded gasoline in gasoline engines for controlling deposits or improving cleanliness in air-intake system or combustion chamber that includes injectors, and therefore anticipates the instant claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants admission Orr WO 87/01384 in view of Russell et al (Russell) 5,518,511, Malfer et al (Malfer EP 0,647,700 A1).

Applicants make admission on record in the preamble of claim 4 that fuels of gasoline comprising a T_{90} range of @ 150-182⁰C, about 3.6 to 20 volume% of olefins, about 5-400 ppm sulfur and about 10-45 volume% of aromatic are combusted and in a gasoline engine. Also applicants make admission on record for a method for controlling the formation of injector tip deposits in a gasoline direct ICE, and the improvement is in the use of aromatic selected from reformat, FCC and mixture thereof.

Orr teaches reformat derived aromatic contents up to 45% volume in unleaded gasoline engines to improve Reid Vapor Pressure that would result in improved air-intake system or combustion chamber that includes injectors, page 10, lines 15-32, page 17, lines 15-29, page 21, lines 1-37, page 22, line 1 to page 26, line 35, and pages 40-45.

Orr is silent to the method for combusting the fuel composition. However, it is stated of the art knowledge in the fuel art that energy is extracted from fuels in engines by combustion. It would be reasonable to the artisan to combust the fuel of Orr to extract of the fuels by combustion which would reasonably be expected to control or

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reduce deposit formation on the injector of gasoline direct engines since the fuel comprises the aromatic content as that of the instant claims.

Russell addresses the concern of reducing or eliminating deposits in and around the inlet valves and injector systems of modern ICE of gasoline engines, see column 2, lines 46-51. Russell further teaches the combustion of an unleaded gasoline composition, column 9, lines 15-40, comprising a T_{90} of 160°C, 10% volume olefins and 40.6% volume aromatics, see Table 4 of column 16 in a gasoline engine with injection system, see column 12, line 31 to column 13, lines 1-29.

Malfer teaches unleaded gasoline compositions comprising reformat aromatic combusted in gasoline engines for preventing or reducing deposit formation in the fuel injection system of spark ignition ICE, especially to control intake valve deposits and fuel injectors, see page 8, lines 29-40 and page 7, lines 11-57.

It would be obvious to the artisan in the art that the combustion of the aromatic containing gasoline of the primary reference by the method of the secondary reference would reduce or control deposit formation on the fuel injectors rendering the instant claims obvious.

The prior art cited by not applied further teaches fuel composition of the same nature as claimed by applicants.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret B. Medley whose telephone number is 703-308-2518. The examiner can normally be reached on Monday-Friday from 7:30 am to 6:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

M. B. Medley/mn
December 18, 2002


MARGARET MEDLEY
PRIMARY EXAMINER